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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,990	07/02/2001	Michael John Bader	2001B053	1190

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EXXONMOBIL CHEMICAL COMPANY  
P O BOX 2149  
BAYTOWN, TX 77522-2149

EXAMINER
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JACKSON, MONIQUE R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/896,990

Applicant(s)

BADER ET AL.

Examiner

Monique R Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:

On page 8, lines 4-11, the specification recites that the second skin layer is formed without adding the non-migratory slip agent however at lines 19-22, the specification recites that the non-migratory slip agent is present in the second skin layer in a range from 500-10,000ppm and hence the specification does not provide literal support for the claim limitations with respect to the amount of PMMA particles in the first skin or seal layer.

The specification describes the first skin layer as comprising a co- or terpolymer and the second skin layer as comprising the ethylene homopolymer however the example refers to the first skin layer as comprising the HDPE and the sealant or second skin layer as the layer comprising the PMMA which is inconsistent with the prior description.

It is also noted that the specification recites that the PMMA particles have a diameter greater than the thickness of the skin layer however Claims 1, 4, 5, 6, and 10 refer to the particles as being greater than 20%, 40%, 50%, 50%, and 40%, respectively, **of the thickness** of the skin layer and hence includes values less than 100% of the skin layer and therefore the specification does not provide literal support for these claim limitations.

Appropriate correction is required.

2. The use of the various trademarks has been noted in this application. They should be capitalized wherever it appears and be accompanied by the generic terminology.

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Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Objections***

3. Claims 1, 4, 5, 6, 7, 10, 11, 12, and 13 are objected to because of the following informalities: the above cited claims recite limitations with respect to layer thickness, PMMA content, and PMMA particle size that are different from the description presented in the specification and/or wherein the specification does not provide literal support for the claim limitations, for example, in Claim 1 - "5.5-10 $\mu$ m" (line 5); "present in said seal layer in the range of from 500-10,000ppm" (lines 7-8); "10-20 $\mu$ m" (line 10); ">20% of the thickness of the seal layer" (lines 11-12); "15-35 weight percent" (lines 20-21). Similarly in Claim 4 – the PMMA content and PMMA particle size. In Claim 5, the seal layer thickness, PMMA content and particle size. In Claim 6, the PMMA content and particle size. In Claim 10, PMMA particle size. In Claims 12 and 13, PMMA content particularly noting that Claim 13 recites a ppm based on the total weight of said film not said layer wherein the Examiner believes the limitation should read "based on the total weight said second layer".

4. Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 5 recites the limitation "The package of claim 5" in line 1 and hence depends on itself.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 recites the limitation "said seal layer is present in said film at a thickness in the range of from 3-20 $\mu$ m" however Claim 4 depends on Claim 1 which recites that the seal layer has a thickness of 5.5-10 $\mu$ m and hence Claim 4 appears to contradict Claim 1 by broadening the thickness range making it unclear whether the seal layer is 5.5-10 $\mu$ m or 3-20 $\mu$ m.

7. Claim 7-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 7 recites the limitation "a first skin layer...selected from one of ethylene propylene butene terpolymer...or combinations thereof ethylene propylene butene terpolymer and polymethyl methacrylate, (PMMA) said first skin layer having a thickness..." in lines 6-12 wherein it is unclear as to what is to be encompassed by the Markush group given that ethylene propylene butene terpolymer is listed twice and PMMA is also included in the Markush group though the specification refers to PMMA as particles within the polymer material of the skin layer but not the skin layer material itself.

8. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 recites the limitation "wherein said PMMA size is >40% of the thickness of the first skin layer" however Claim 10 depends on Claim 9 which recites that the

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PMMA particle size is at least 20% greater than the thickness of said first skin layer. Hence, Claim 10 appears to include values from >40% of the layer thickness to <20% greater than the thickness and hence contradicts the limitation of Claim 9 by broadening the particle size to include values less than the layer thickness.

9. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 recites the limitation "said sealant layer" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amon et al (USPN 6,420,041) in view of Nagai et al (USPN 6,106,933.) Amon et al teach a biaxially oriented polyolefin film comprising an isotactic polypropylene core layer; a metallizable skin layer comprising linear ethylene homopolymer having a density of about 0.96g/cc(HDPE); a skin layer opposite the side of the core layer from the metallizable layer that may be heat sealable especially polyolefinic heat sealable copolymers or terpolymers such as EPB; wherein either skin layer can optionally contain a minor amount, 0.1 to 0.5% by weight of antiblock particles such as PMMA particles wherein a major portion of the particles may be of such a size that a significant portion of their surface area will extend beyond the exposed surface of such skin layer; and

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wherein the metal layer is preferably aluminum that is vacuum deposited on the metallizable layer that has been subjected to corona or flame treatment (Abstract; Col. 3, lines 50-56; Col. 4, lines 6-15 and 42-63; Col. 5, line 33-Col. 6, line 5.) Amon et al teach that the core layer may represent about 70 to about 90% of the thickness of the total multilayer film which is about 10 to about 50 $\mu$ m and that the metallizable layer may have a thickness of about 0.5 to about 4 $\mu$ m (Col. 5, lines 51-55; Col. 6, lines 11-14.)

Amon et al do not specifically teach the size of the antiblock or PMMA particles or the thickness of the layers as instantly claimed, however, it is well known in the art that layer thickness is a result-effective variable affecting the mechanical and sealing properties of the resulting multilayer film and hence one having ordinary skill in the art at the time of the invention would have been motivated to utilize routine experimentation to determine the optimum layer thickness for a particular end use. Further, with regards to the PMMA antiblocking particles, Nagai et al teach that crosslinked PMMA particles in an amount of 0.05 to 0.5 wt% and having a particle size of 0.5 to 4 $\mu$ m being selected in a range of 0.7 to 2 times the thickness of a polyolefin surface layer of a biaxially oriented polypropylene film provides anti-scratching properties, lubrication and anti-blocking properties to the film. Therefore, one having ordinary skill in the art at the time of the invention would have been motivated to utilize PMMA particles having a particle size up to 2 times the thickness of the surface layer as taught by Nagai et al in the invention taught by Amon et al, utilizing routine experimentation to determine the optimum particle size and amount to provide the desired antiblocking properties for a particular end use.

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12. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bader et al (USN 5,753,363) in view of Nagai et al. Bader et al teach a biaxially oriented, heat sealable metallizable multilayer film comprising an isotactic polypropylene core (b); an olefin external surface layer (a) comprising EPB; a metallizable skin layer (c) preferably comprising HDPE; a metal layer preferably aluminum deposited on the metallizable skin layer (c); wherein the core layer comprises 70-95% of the thickness of the film and each skin layer, for example, comprises 6% of the thickness; and wherein skin layer (a) and/or (c) can comprise additional antiblock particles other than the crosslinked polysiloxane particles wherein a major proportion of these particles will be of such a size that a significant portion of their surface area will extend beyond the exposed surface of such skin layer (Abstract; Col. 2, lines 31-62; Col. 3, lines 20-22 and lines 38-60; Col. 4, lines 43-67; Col. 5, lines 1-12 and lines 16-28; Col. 6, lines 14-26; Examples.)

Bader et al do not specifically teach the size of the antiblock or PMMA particles or the thickness of the layers as instantly claimed, however, it is well known in the art that layer thickness is a result-effective variable affecting the mechanical and sealing properties of the resulting multilayer film and hence one having ordinary skill in the art at the time of the invention would have been motivated to utilize routine experimentation to determine the optimum layer thickness for a particular end use. Further, with regards to the PMMA antiblocking particles, Nagai et al teach that crosslinked PMMA particles in an amount of 0.05 to 0.5 wt% and having a particle size of 0.5 to 4 $\mu$ m being selected in a range of 0.7 to 2 times the thickness of a polyolefin surface layer of a biaxially oriented polypropylene film provides anti-scratching properties, lubrication and anti-blocking properties to the film. Therefore, one having ordinary skill in the art at the time of the invention would have been motivated to utilize PMMA



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particles having a particle size up to 2 times the thickness of the surface layer as taught by Nagai et al in the invention taught by Bader et al, utilizing routine experimentation to determine the optimum particle size and amount to provide the desired antiblocking properties for a particular end use.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Monique R. Jackson  
Patent Examiner  
Technology Center 1700  
February 24, 2003